Spectra® IV SL Series Dome Systems

HIGH-PERFORMANCE INTEGRATED DOME SYSTEM

Product Features

- Autofocus, High Resolution Integrated LowLight™ Color Camera/Optics Package
- Day/Night, 540 TVL
- 23X Optical Zoom
- Window Blanking
- Camera Title Overlay, 20 User-Definable Characters
- On-Screen Compass and Tilt Display
- Password Protection
- Freeze Frame During Presets
- Built-in Surge and Limited Lightning Protection
- Integrated Passive Unshielded Twisted Pair (UTP) Circuit
- Internal Scheduling Clock
- Ability to Add IP Network Capability by Purchasing Optional TXB-IP Module

IN-CEILING MODEL
SD423-F0

ENVIRONMENTAL PENDANT
SD423-PG-E0
(SHOWN WITH SWM-GY WALL MOUNT)

Modularity

Spectra® IV SL Series was designed with ease of installation and ease of maintenance in mind. Each dome system consists of three components: a back box, a dome drive, and a lower dome. These three system components are interchangeable with other Spectra IV dome systems, making retrofitting and application adjustments simple. Also, dome drives and lower domes can be removed and replaced reducing maintenance time.

Back Box

Spectra IV SL back box options include the following models: environmental in-ceiling (ideal for outdoor soffits), indoor in-ceiling, indoor surface mount, standard and environmental. A **passive UTP circuit** is located on the door assembly for convenient video transmission through twisted pair wire. For added flexibility, Pelco fiber modules can also be attached to the door assembly for transmission over single-mode or multimode fiber.

Dome Drive

The Spectra IV SL dome drive's **integrated optics package** incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. The camera features 23X optical zoom and 12X digital zoom. Spectra IV SL dome drives feature an EXview HAD™ imager for increased sensitivity and **LowLight™** technology to compensate for scenes where minimal light is present. The camera also offers **freeze frame between presets** and **window blanking.**

Lower Dome

Special consideration was taken when designing the Spectra IV SL lower dome bubble to ensure that an optimal optical relationship between the lens and bubble was achieved, providing crystal clear video at long focal lengths.

Dome Systems

Spectra IV SL dome systems feature many software enhancements that increase performance and make configuration and operation easy. An **internal scheduling clock** allows for the scheduling of presets and patterns. **Window blanking** enables a user to configure a four-sided, user-defined privacy area. **Password protection** prevents unauthorized users from changing the system settings. Configurable **on-screen compass and tilt display** provides positioning information when needed. Intuitive multilingual on-screen menus can be displayed in English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech.

Spectra IV SL's variable speed capabilities range from a smooth, fast pan motion of 400 degrees per second to a smooth "creep" speed of 0.1 degree per second. The system is capable of continuous 360 degrees rotation and has an **"auto flip"** feature that allows the dome to rotate 180 degrees and reposition itself for uninterrupted viewing of any subject that passes directly beneath the dome.

In addition, with the optional Pelco TXB-IP module, you can add IP network capability at any time to a Spectra IV dome system without losing analog viewing and control. By snapping the TXP-IP module into the back box, you can stream network video to a Web browser, Endura®, Digital Sentry®, or third-party software recording solution allowing integration into virtually any IP-based system.

TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

Signal Format	NTSC (DD423) PAL (DD423-X)
Scanning System	2:1 Interlace
Image Sensor	
Effective Pixels	1/4-inch progressive scan CCD
NTSC	768 (H) X 494 (V)
PAL	752 (H) X 582 (V)
Horizontal Resolution	
NTSC/PAL	540 TV Lines
Lens	f/1.6 (focal length, 3.6 ~ 82.8 mm)
Zoom	23X optical, 12X digital
Zoom Speed (optical range)	2.9/4.2/5.8 seconds
Horizontal Angle of View	54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom
Focus	Automatic with manual override
Maximum Sensitivity at 35 IRE	
NTSC/EIA	0.65 lux at 1/60 sec (color) 0.15 lux at 1/60 sec (B-W)
PAL/CCIR	0.55 lux at 1/50 sec (color) 0.12 lux at 1/50 sec (B-W)
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync
White Balance	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/manual
NTSC	1/2 ~ 1/30,000
PAL	1/1.5 ~ 1/30,000
Iris Control	Automatic iris control with manual override
Gain Control	Automatic/OFF
Video Output1	Vp-p, 75 ohms
Video Signal-to-Noise	>50 dB

DOME DRIVE FEATURES

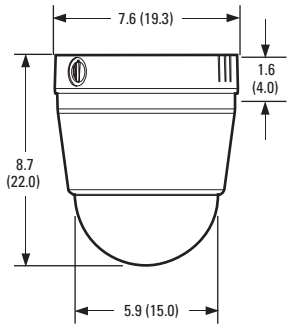
- 64 Presets
- ±0.1° Preset Accuracy
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- Password Protection
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- 8 Zones (configurable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- Configurable Locations of Labels and On-Screen Displays
- Patterns: 1 On-Screen, User-Defined Configurable Pattern; Includes Pan, Tilt, Zoom, and Preset Functions
- Proportional Pan/Tilt: Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom
- Variable Scan Speed: Scan Speed Can Be Configurable Between 1 to 40°/sec
- Pan Motion Allows 0.1 to 150°/sec Pan Speed
- Configurable Limit Stops for Auto/Random/Frame Scan Modes
- Auto-sensing Protocol (Coaxitron®, RS-422 Pelco P and Pelco D, Sensormatic®, Vicon®); Accepts Other Control Protocols with Optional Translator Card
- Digital Position and Zoom Control and Feedback Using D Protocol
- Built-in Menu System for Setup of Configurable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Window Blanking: Up to 4 Four-Sided, User-Defined Shapes
- 1 Alarm Input
- 1 Auxiliary (Form C) Relay Output
- Freeze Frame Between Presets

TECHNICAL SPECIFICATIONS

BACK BOX FEATURES

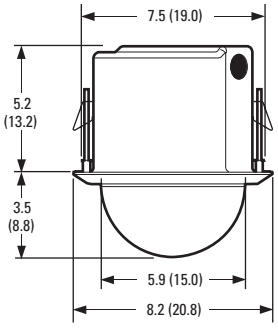
Surface Mount (Indoor)

- Available in Black or White Finish
- Installs Quickly and Easily to Any Type of Ceiling
- Quick Disconnect to Dome Drive
- Injection-Molded Plastic



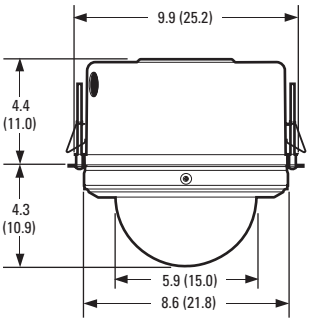
In-Ceiling (Indoor)

- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 5.25-Inch Space Above Ceiling and 3.25 Inches Below
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces



Environmental In-Ceiling

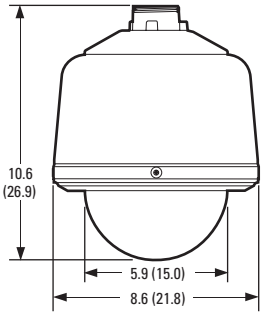
- Single Back Box for Hard Ceiling Applications
- Requires 4.4-Inch Space Above Ceiling and 4.3 Inches Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction



Standard and Environmental Pendant

- Standard and Environmental Models
- Standard Pendant Available in Black or Gray Finish; Environmental Pendant Gray Finish Only
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Environmental Model Includes Sun Shield, Fan, and Heater

(ENVIRONMENTAL DOME WITH SUN SHROUD SHOWN)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

TECHNICAL SPECIFICATIONS

MECHANICAL *(Dome Drive Only)*

Pan Movement	360° continuous pan rotation
Vertical Tilt	Unobstructed +2° to –92°
Manual Pan/Tilt Speeds	
Pan	0.1° to 80°/sec manual operation, 150°/sec Turbo
Tilt	0.1° to 40°/sec manual operation
Preset Speeds	
Pan	400°/sec
Tilt	200°/sec
	For variable-speed operation an appropriate controller is required. (With nonvariable speed control, Spectra IV pan/tilt speed is 20°/sec)

ELECTRICAL

Input Voltage	18 to 32 VAC; 24 VAC nominal 22 to 27 VDC; 24 VDC nominal
Input Power	
24 VAC	23 VA nominal (without heater); 73 VA nominal (with heater)
24 VDC	0.7 A nominal (without heater); 3 A nominal (with heater)
Fuse	1.25 A

CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- S Mark for Argentina
- Meets NEMA Type 4X, IP66 when installed properly (BB4-F-E, BB4-PB, BB4-PG, and BB4-PG-E)
- Meets NEMA Type 1, IP40 (BB4-SMW, BB4-SMB, and BB4-F)
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2; 7,161,615 B2

GENERAL

Construction		
Back Box		
Surface Mount	Plastic	
In-Ceiling	Aluminum	
Pendant	Aluminum	
Dome Drive	Aluminum, thermo plastic	
Bubble	Acrylic	
Light Attenuation		
Smoked	f/0.5 light loss	
Clear	Zero light loss	
Chrome	f/2.0 light loss	
Gold	f/2.0 light loss	
Cable Entry (Back Box)		
In-Ceiling and Surface Mount	0.75-inch conduit fitting	
Pendant	Through 1.5-inch NPT pendant mount	
Weight (approximate)	Unit	Shipping
Back Box		
Surface Mount	0.7 lb (0.32 kg)	2 lb (0.90 kg)
In-Ceiling Environmental	1.5 lb (0.68 kg)	2 lb (0.90 kg)
In-Ceiling	2.1 lb (0.95 kg)	3 lb (1.36 kg)
Standard Pendant	2.4 lb (1.09 kg)	4 lb (1.81 kg)
Environmental Pendant	3.5 lb (1.59 kg)	5 lb (2.27 kg)
Dome Drive	3.3 lb (1.48 kg)	5 lb (2.27 kg)
Lower Dome		
Surface Mount	0.4 lb (0.18 kg)	1 lb (0.45 kg)
In-Ceiling	0.2 lb (0.09 kg)	1 lb (0.45 kg)
Pendant and Environmental In-Ceiling	0.6 lb (0.27 kg)	2 lb (0.90 kg)
Environment		
Surface Mount	Indoor	
In-Ceiling	Indoor	
Environmental In-Ceiling	Outdoor	
Pendant, Standard and Environmental	Indoor/outdoor	
Operating Temperature		
Surface Mount and Indoor In-Ceiling	32° to 122°F (0° to 50°C)	
Standard Pendant	(Assumes no wind chill factor)	
Maximum	113°F (45°C) absolute maximum; 95°F (35°C) sustained maximum	
Minimum	25°F (–4°C) sustained minimum	
Environmental In-Ceiling and Environmental Pendant	(Assumes no wind chill factor)	
Maximum	140°F (60°C) absolute maximum; 122°F (50°C) sustained maximum	
Minimum	–60°F (–51°C) absolute minimum; prevents icing at sustained minimum of –50°F (–45°C); de-ices 0.1 inch (2.5 mm) within 3 hours after power-up	
TS2	–29.2° to 165°F (–34° to 74°C) *Per NEMA TS2, para. 2.1.5.1, using fig. 2.1 test profile*	
Effective Projected Area (EPA)	20.5 square inches (without mount) 47 square inches (with IWM Series mount)	

RELATED PRODUCTS

OPTIONAL ACCESSORIES

DD5-FM	Fixed camera mount adapter. Interchangeable with all Spectra IV dome drives.
IPS-CABLE	Remote monitor cable and software kit consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC. Refer to *www.pelco.com* for a list of compatible devices.
IPS-RDPE-2*	Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/configuration and software upgrades when used with the IPS-CABLE.
TXB Series*	Translator boards for AD™ Manchester, Hernis, Bosch® (Philips, Burle), TASS, and NTCIP protocols.
TXB-IP Series*	Communication module that allows you to control and monitor Spectra IV dome systems over an IP network (in-ceiling and pendant models only).
FS85011A*	Fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over one multimode or single-mode fiber optical cable.

*If TXB or FS85011A boards are installed, it is not possible to upgrade system operating software through the remote data port (IPS-RDPE-2).

RECOMMENDED MOUNTS

Surface Mount Domes

PASMB	Pendant adapter for surface mount dome, black
SD53SM-P	2' x 2' drop ceiling panel for BB4-SMW Series back boxes. Replaces 2' x 2' ceiling tile. Aluminum construction.

In-Ceiling Domes

SD5-P	2' x 2' drop ceiling panel, aluminum construction. Replaces 2' x 2' ceiling tile.
SCA1	Support rails for BB4-F; for use in ceiling tile applications.

Pendant Domes

BB5-PCA-BK†	Pendant conduit adapter, black
BB5-PCA-GY†	Pendant conduit adapter, gray
IWM Series	Wall mount, with or without integral 24 VAC, 100 VA transformer. Black or gray finish. Can be adapted for corner, parapet or pole applications.
MRCA	Ceiling mount, black
PP4348	Parapet roof mount
PP350/PP351	Parapet wall/roof mount
SWM Series	Compact wall mount, black or gray finish. Can be adapted for corner or pole applications.

† Not suitable for use with heavy-duty, pressurized, or stainless steel Spectra domes.

RECOMMENDED POWER SUPPLIES

MCS Series	Indoor, 24 VAC power supply
WCS Series	Outdoor, 24 VAC power supply

Refer to individual power supply specifications for more information.

SYSTEM AND COMPONENT MODELS

SYSTEM MODEL NUMBERS

Type	Back Box Color	Lower Dome	23X Day/Night (NTSC)	23X Day/Night (PAL)
Surface Mount	White	Smoked	SD423-SMW-0	SD423-SMW-0-X
		Clear	SD423-SMW-1	SD423-SMW-1-X
		Chrome	SD423-SMW-2	SD423-SMW-2-X
		Gold	SD423-SMW-3	SD423-SMW-3-X
	Black	Smoked	SD423-SMB-0	SD423-SMB-0-X
		Clear	SD423-SMB-1	SD423-SMB-1-X
		Chrome	SD423-SMB-2	SD423-SMB-2-X
		Gold	SD423-SMB-3	SD423-SMB-3-X
In-Ceiling, Indoor	Black	Smoked	SD423-F0	SD423-F0-X
		Clear	SD423-F1	SD423-F1-X
		Chrome	SD423-F2	SD423-F2-X
		Gold	SD423-F3	SD423-F3-X
In-Ceiling, Environmental*	Black	Smoked	SD423-F-E0	SD423-F-E0-X
		Clear	SD423-F-E1	SD423-F-E1-X
Pendant, Standard	Black	Smoked	SD423-PB-0	SD423-PB-0-X
		Clear	SD423-PB-1	SD423-PB-1-X
		Chrome	SD423-PB-2	SD423-PB-2-X
		Gold	SD423-PB-3	SD423-PB-3-X
	Light Gray	Smoked	SD423-PG-0	SD423-PG-0-X
		Clear	SD423-PG-1	SD423-PG-1-X
		Chrome	SD423-PG-2	SD423-PG-2-X
		Gold	SD423-PG-3	SD423-PG-3-X
Pendant, Environmental*	Light Gray	Smoked	SD423-PG-E0	SD423-PG-E0-X
		Clear	SD423-PG-E1	SD423-PG-E1-X

COMPONENT MODEL NUMBERS

Back Box		Dome Drive		Lower Dome†	
BB4-SMB	Surface mount, black	DD423	Day/Night (NTSC) camera (23X)	LD53SMB-0	Smoked, surface, black
BB4-SMW	Surface mount, white	DD423-X	Day/Night (PAL) camera (23X)	LD53SMB-1	Clear, surface, black
BB4-F	In-ceiling, black	DD5-FM	Removable, fixed mount bracket only (camera and lens not included); interchangeable with all Spectra IV dome drives	LD53SMB-2	Chrome, surface, black
BB4-F-E	In-ceiling, black, environmental			LD53SMB-3	Gold, surface, black
BB4-PB	Pendant mount, black, standard			LD53SMW-0	Smoked, surface, white
BB4-PG	Pendant mount, gray, standard			LD53SMW-1	Clear, surface, white
BB4-PG-E	Pendant mount, gray, environmental			LD53SMW-2	Chrome, surface, white
				LD53SMW-3	Gold, surface, white
				LDHQF-0	Smoked, in-ceiling
				LDHQF-1	Clear, in-ceiling
				LD5F-2	Chrome, in-ceiling
				LD5F-3	Gold, in-ceiling
				LDHQPB-0	Smoked, pendant, black
				LDHQPB-1	Clear, pendant, black
				LD53PB-2§	Chrome, pendant, black
				LD53PB-3§	Gold, pendant, black

Notes:

To order a fixed mount dome system refer to the component models above and select one each of the following options: back box (BB4-F), dome drive (DD5-FM), plus choice of lower dome (LDHQF-0, LDHQF-1, LD5F-2, or LD5F-3).

For environmental applications, you must order an environmental back box (BB4-F-E or BB4-PG-E).

DD5-FM is ideal for use with Pelco's C10DN-6, C10DN-6X, C10CH-6, C10CH-6X, CCC1390H-6, and CCC1390H-6X cameras with selected Pelco lenses.

*Environmental dome systems include a heater, fan, and the environmental pendant also includes a sun shield.

†Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.

§Not recommended for outdoor use due to possible light reflections.

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